

AF/1774

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES



In the Patent Application of

Kazuki SUZAWA, et al.

Serial No. 09/551,537

Filed: April 18, 2000

For: PROCESS FOR PRODUCING OPTICAL RECORDING MEDIUM AND OPTICAL RECORDING MEDIUM

Group Art Unit: 1774

Examiner: Lawrence D. Ferguson

BOX NON-FEE AMENDMENTCommissioner for Patents
Washington, DC 20231**RECEIVED**

JAN 10 2003

TC 1700

Sir:

Three copies of an Appellant's Renewed Brief on Appeal for the above-referenced application are being filed herewith. Thus, consideration of the Appeal Brief is respectfully requested.

A Notice of Appeal and an Appeal Brief and fee was filed July 23, 2002. Thus, it is believed that no fees are due. M.P.E.P. §1208.03. However, if a fee is required, the Commissioner is hereby authorized to charge the fee to Deposit Account # 18-0013.

Respectfully submitted,

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Date: January 8, 2003

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U.S. Patent Application No.: 09/551,537
Attorney Docket No.: OKA-0003 (85424-0003)

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BOX Non-Fee Amendment
Commissioner for Patents
Washington, DC 20231

Sir:

This is an Appeal Brief under 37 C.F.R. 1.192 appealing the decision of the Examiner dated October 18, 2002, the application having been three-times rejected. Each of the topics required by 37 C.F.R. 1.192 is presented herewith and is labeled appropriately.

I. Real Party in Interest

TDK Corporation of Tokyo, Japan ("TDK") is the real parties in interest of the present application. An assignment of all rights in the present application to TDK was executed by the inventors and recorded by the U.S. Patent and Trademark Office at reel 010734, frame 0548.

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II. Related Appeals and Interferences

There are no related appeals or interferences.

III. Status of Claims

Claims 1-5 stand three-times rejected. No claims have been amended. No claims are currently allowed.

Accordingly, the Appellants hereby appeal the rejection of claims 1-5, which are presented in the Appendix.

IV. Status of Amendments

An Amendment was filed subsequent to the first rejection of October 2, 2001 (Paper No. 3). No Amendment was made following the Final Rejection (Paper No. 5), and a Notice of Appeal and subsequent Appeal Brief was filed. Prosecution was reopened, and a non-final Office Action (Paper No. 13) was issued October 18, 2002. Applicants renew their Appeal by the filing of this Renewed Appeal Brief. No fees are believed due.

The claims in the Appendix represent the state of the claims as pending.

V. Summary of the Invention

The invention relates to an optical recording medium having high weatherability that can be produced when no drying step is performed after an organic dye layer is formed by a spin coating method. In this structure of the optical recording medium, an organic dye recording layer, which serves to record and reproduce using laser light is formed on a light-transmittable substrate formed with a pregroove. A reflecting layer

increasing light-reflectance is formed on the organic dye recording layer. A protective layer which protects the organic dye recording layer is formed on the reflecting layer.

The optical recording medium contains an organic solvent in an organic dye layer in an amount of 2% to 15% by weight based on the organic dye. The process for producing the optical recording medium comprises preparing a solution by dissolving the organic dye in the organic solvent, applying the solution onto a light-transmittable substrate by a spin coating method to form an organic dye layer, and thereafter forming a reflecting layer on the organic dye layer without performing a drying treatment of the organic solvent left in the organic dye layer and further forming a protective layer on the reflecting layer.

VI. Issues

The issue presented for consideration in this appeal is as follows:

- (1) Whether the Examiner erred in rejecting claims 1 and 3-4 under 35 U.S.C. §103(a) as being anticipated by U.S. Patent No. 5,952,073 to Hurditch et al.?
- (2) Whether the Examiner erred in rejecting claims 2 and 5 under 35 U.S.C. §103(a) as being obvious over U.S. Patent No. 5,952,073 to Hurditch et al. in view of U.S. Patent No. 5,547,728 to Cunningham et al.?

VII. Grouping of Claims

Claim 1 stands or falls alone with respect to the §103 rejections over

Hurditch et al. '073.

Claims 3-4 stand or fall together with respect to the §103 rejections over Hurditch et al. '073.

Claim 2 stands or falls alone with respect to the §103 rejections over Hurditch et al. '073 in view of Cunningham et al. '728.

Claim 5 stands or falls alone with respect to the §103 rejections over Hurditch et al. '073 in view of Cunningham et al. '728.

VIII. Arguments

In the non-final Office Action of October 18, 2002 (Paper No. 13), the following rejections were presented by the Examiner:

(i) 35 U.S.C. §103

- (1) The examiner rejected claims 1 and 3-4 under 35 U.S.C. §103(a) as allegedly being obvious over Hurditch et al. '073.
- (2) The Examiner rejected claims 2 and 5 under 35 U.S.C. §103(a) as allegedly being obvious over Hurditch et al. '073 in view of Cunningham et al. '728.

(ii) Other

None

For at least the following reasons, Appellant submits that these rejections are both technically and legally unsound and should therefore be reversed.

(i) 35 U.S.C. §103

The examiner rejected claims 1 and 3-4 under 35 U.S.C. §102(e) as allegedly being obvious over Hurditch et al. '073

Claim 1 recites a process for producing an optical recording medium containing an organic solvent in an organic dye layer in an amount of 2% to 15% by weight based on an organic dye. The process comprises applying a solution, prepared by dissolving the organic dye in the organic solvent, onto a light-transmittable substrate by a spin coating method to form the organic dye layer. Thereafter, a reflecting layer is formed on the organic dye layer without performing a drying treatment of the organic solvent left in the organic dye layer, and further forming a protective layer on the reflecting layer. In this manner, solvent contained in the organic dye layer is not removed via a drying step.

Claim 3 recites an optical recording medium having an organic dye layer, a reflecting layer and a protective layer in this order on a light-transmittable substrate. The optical recording medium contains an organic solvent in the organic dye layer in an amount of 2% to 15% by weight based on an organic dye.

It should be noted that both claims 1 and 3 recite that the organic solvent is contained in the organic dye layer in an amount of 2% to 15% by weight based on the organic dye.

Hurditch et al. '073 discloses a dye composition for use in optical recording media. All the layers recited in claim 1 are allegedly presented in this reference at col. 7, lines 10-16. The Office Action (Paper No. 13) alleges that the dye layer may be optionally dried, referring to col. 11, lines 9-10, and further alleges that this means that the dye layer does not necessarily have to undergo a drying treatment. Appellants disagree with this characterization of the reference.

Hurditch et al. '073 at col. 11, lines 9-10 states that "the dye layer may be optionally dried to further remove residual solvent..." (emphasis added). When taken in context of the specification, this means that the solvent is removed from the applied dye layer under ambient conditions, or that removal of the solvent may be accelerated by additional drying. By stating that the drying is "additional," the reference is stating unequivocally that the "additional drying" (further remove) is in addition to any drying that is already occurring or has already occurred. Furthermore, there is no indication in this reference that the reflective layer is applied to a dye layer whereby no drying step has occurred on the dye layer. That is, Hurditch et al. '073 does not disclose, teach or suggest the absence of a drying step.

The Office Action acknowledges that Hurditch et al. '073 does not disclose the organic dye layer in an amount 2-15% by weight, and alleges that the reference discloses 2-10% by weight at col. 10, lines 26-29. Office Action (Paper No. 13) at page 2, paragraph 4, referring to Hurditch et al. '073 col. 10, lines 26-29. This is a misleading interpretation, as Hurditch et al. '073 discloses a concentration of the total solid component in the coating solution for forming the recording layer. Hurditch et al. '073 specifically recite that "The recording layer is formed by dissolving the dye mixture together with any additional nickel stabilizer in a coating solvent at a concentration in the range 2-10% by weight of the total solid components in the solution." Col. 10, lines 26-29 (emphasis added). Accordingly, the amount of 2-10% is the dye plus nickel

stabilizer. This is distinct from a content of the organic solvent in the organic dye layer recited in claims 1 and 3. Specifically, claim 1 recites that "an organic solvent in an organic dye layer in an amount of 2 to 15% by weight based on an organic dye...." Accordingly, the Office Action (Paper No. 13) utilizes different components in Hurditch et al. '073 to equate to the recited elements of claims 1 and 3, however Hurditch et al. '073 fails to disclose, teach or suggest a content of the organic solvent in the organic dye layer. Accordingly, it would not be obvious to one of ordinary skill in the art to substitute "an organic solvent in an organic dye layer in an amount of 2 to 15% by weight based on an organic dye" for "dissolving the dye mixture together with any additional nickel stabilizer in a coating solvent at a concentration in the range 2-10% by weight of the total solid components in the solution" of Hurditch et al. '073. Accordingly, the rejection should not be sustained.

Still further, in the Response to Arguments section (paragraph 7) of the Office Action (Paper No. 13), the Office Action alleges that "every feature is shown by Hurditch." However, the Examiner has withdrawn the §102 rejection, therefore, the Examiner has now acknowledged that **NOT** all of the features are disclosed in Hurditch et al. As Appellants stated that Hurditch et al. '073 does not disclose, teach or suggest this feature, and the Examiner has simply converted the §102 rejection to a §103 rejection, and the Examiner has failed to rebut Appellants assertion, a *prima facie* case of obviousness has not been made, and the rejection should not be sustained.

The Office Action (Paper No. 13) at paragraph 4 acknowledges that, in Hurditch et al. '073 "the dye layer may be optionally dried," and alleges that the Applicants are "reading into what the reference is implying." However, it is the Examiner who is misreading the reference for what it states by taking a portion of Hurditch et al '073 out of context. The reference SPECIFICALLY STATES at col. 11, lines 9-10 states that

"the dye layer may be optionally dried to further remove residual solvent..."
(emphasis added). This language is clear on its face, and the Examiner cannot ignore this sentence for what it discloses, teaches or suggests. Contrary to what the Examiner believes, this sentence DOES NOT MEAN "that the layer does not have to be dried." Final Office Action at paragraph 7, lines 6-7.

The Examiner further alleges that in paragraph 4 of the Office Action (Paper No. 13) at page 3, lines 3-5 that "Hurditch does not explicitly disclose the organic dye layer in an amount of 2 to 15% by weight, however the reference does disclose an amount of 2 to 10% by weight (column 10, lines 26-29)." Appellants object to this mischaracterization of the reference. As discussed above, Hurditch et al. '073 specifically recite that "The recording layer is formed by dissolving the dye mixture together with any additional nickel stabilizer in a coating solvent at a concentration in the range 2-10% by weight of the total solid components in the solution." Col. 10, lines 26-29 (emphasis added). Accordingly, the amount of 2-10% is the dye plus nickel stabilizer. This is distinct from a content of the organic solvent in the organic dye layer recited in claims 1 and 3.

In contrast, claim 1 recites a process for producing an optical recording medium containing an organic solvent in an organic dye layer in an amount of 2% to 15% by weight based on an organic dye. As stated previously, the final Office Action (Paper No. 4) did not allege that Hurditch et al. '073 disclosed, taught or suggested the claimed percentages of components, and therefore was considered an admission by the Examiner. The Examiner now attempts to equate "2-10% is the dye plus nickel stabilizer" as the same as an organic solvent in an organic dye layer in an amount of 2% to 15% by weight based on an organic dye without additional explanation of why or how the Examiner changed his mind. Appellants object, and maintain that the rejection is deficient, and a prima facie case of obviousness has not been made.

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Appellants wish to point out that the Examiner has done nothing more than convert the previous §102 rejection to a §103 rejection.

Accordingly, for all the reasons discussed above, this rejection should not be sustained.

Claim 4, being dependent upon claim 3, is also allowable for the reasons above. Moreover, this claim is further distinguished by the materials recited therein, particularly within the claimed combination. Accordingly, for all the reasons discussed above, this rejection should not be sustained.

The Examiner rejected claims 2 and 5 are rejected under 35 U.S.C §103(a) as allegedly being obvious over Hurditch et al. '073 in view of U.S. Patent No. 5,547,728 to Cunningham et al. Appellants respectfully traverse this rejection.

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Cunningham et al. '728 is applied solely for the proposition that the solvent can be 2,2,3,3-tetraflouro-1-propanol. Cunningham et al. '728 does not make up for the deficiencies of Hurditch et al. '073, discussed above. Still further, Cunningham et al. '728 does not disclose, teach or suggest an optical recording medium having an organic dye layer, a reflecting layer and a protective layer in this order on a light-transmittable substrate, or that the optical recording medium contains an organic solvent in the organic dye layer in an amount of 2% to 15% by weight based on an organic dye, in such a way that would make up for the deficiencies of Hurditch et al. '073. Accordingly, a *prima facie* case of obviousness has not been established, and the rejection should not be sustained.

Furthermore, claim 2, being a process claim dependent upon claim 1, and claim 5, being a product claim dependent upon claims 3 or 4, are also allowable for the reasons above. Moreover, these claims are further distinguished by the materials recited therein, particularly within the claimed combination. Accordingly, all §103 rejections should not be sustained.

(ii) Other

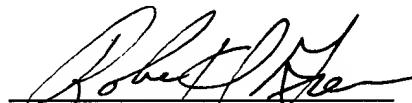
None

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IX. Conclusion

In view of the foregoing reasons, Appellant submits that the final rejection of claims 1-5 is improper and should not be sustained. Therefore, a reversal of the Rejections contained in the Office Action of October 18, 2002 (Paper No. 13), as to claims 1-5, is respectfully requested.

Respectfully submitted,



Date: January 8, 2003

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Should additional fees be necessary in connection with the filing of this paper, or if a petition for extension of time is required for timely acceptance of same, the Commissioner is hereby authorized to charge Deposit Account No. 180013 for any such fees; and applicant(s) hereby petition for any needed extension of time.

X. Appendix
Claims on Appeal

1. A process for producing an optical recording medium containing an organic solvent in an organic dye layer in an amount of 2 to 15% by weight based on an organic dye, the process comprising applying a solution, prepared by dissolving the organic dye in the organic solvent, onto a light-transmittable substrate by a spin coating method to form the organic dye layer, thereafter forming a reflecting layer on the organic dye layer without performing a drying treatment of the organic solvent left in the organic dye layer and further forming a protective layer on the reflecting layer.
2. A process for producing an optical recording medium according to Claim 1, wherein the spin coating is performed at a rotating speed of 3500 rpm or more in the formation of the organic dye layer.
3. An optical recording medium having an organic dye layer, a reflecting layer and a protective layer in this order on a light-transmittable substrate, the optical recording medium containing an organic solvent in the organic dye layer in an amount of 2 to 15% by weight based on an organic dye.
4. An optical recording medium according to Claim 3, wherein said organic solvent is at least one member selected from fluorinated alcohols having a boiling point of 60°C or more, 2-ethoxyethanol and diacetone alcohol.
5. An optical recording medium according to Claim 3 or 4, wherein said organic solvent is mainly 2,2,3,3-tetrafluoro-1-propanol.